

REMARKS

Claims 1-23 and 25-29 are all the claims pending in the application. By this Amendment, Applicant amends claims 1, 3, 5, 9, 11, 12, 13, 17, 19, 20, and 21. Claims 1, 3, 5, 9, 11, 13, 17, 19, and 21 are amended to further clarify the invention. Claims 12 and 20 are amended to cure minor informalities.

I. Summary of the Office Action

The Examiner withdrew the previous rejections. The Examiner, however, found new grounds for rejecting the claims. In particular, claims 1-23 and 25-29 are rejected under 35 U.S.C. § 103(a).

II. Prior Art Rejections

Claims 1-5, 7-13, 15-21, 23, 28, and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,134,496 to Schwab et al. (hereinafter “Schwab”) in view of an Official Notice. Applicant respectfully traverses these grounds of rejection at least in view of the following comments.

Of these rejected claims, only claims 1, 3, 5, 9, 11, 13, 17, 19, and 21 are independent. Claims 1 and 9 recite, in some variation, contents which are substantive or meaningful parts of digital data and setting an end timing of said embedded digital watermark in said contents at said determined timing. Claims 3 and 11 recite, in some variation, a plurality of continuous contents which are substantive or meaningful parts of digital data and setting a start timing of said embedded digital watermark at said determined timing in second contents prior to said first contents. Independent claims 5 and 13, in some variation, recite: “a plurality of continuous contents which are substantive or meaningful parts of digital data, and a setting device for setting

a second change timing of said digital watermark in said adjacent contents at said determined timing.” Claim 17 recites: “contents which are substantive or meaningful parts of digital data and wherein an end timing of said embedded digital watermark in said contents is set before an end timing of said contents.” Claim 19 recites: “plurality of continuous contents which are substantive or meaningful parts of digital data, and wherein a start timing of said embedded digital watermark for first contents is set in second contents prior t said first contents before a start timing of said first contents.” Claim 21 recites: “a plurality of continuous contents which are substantive or meaningful parts of digital data, wherein a first change timing of said digital watermark in adjacent contents is set before a second change timing, where the second change timing is a timing at which the adjacent contents are switched to current contents.”

That is, in an exemplary, non-limiting embodiment, a timing before an end timing of contents, which are substantive or meaningful parts of digital data, is determined. Contents are substantive or meaningful parts of digital data such as one movie, one music tune and so on. In an exemplary embodiment, it is possible to set an end timing of the embedded digital watermark in the contents at the determined timing. Further, it is possible to detect the next embedded digital watermark for the next contents before the next contents starts. As a result, it is possible to perform an appropriate processing in accordance with the next embedded digital watermark from the beginning of the next contents. It will be appreciated that the foregoing remarks relate to the invention in a general sense, the remarks are not necessarily limitative of any claims and are intended only to help the Examiner better understand the distinguishing aspects of the claims mentioned above.

The Examiner contends that Schwab discloses the unique features of these independent claims. Specifically, in response to Applicant’s arguments, the Examiner contends that Schwab

discloses determining an end timing because Schwab discloses encoding a video sequence that is displayed using fields. These fields have a specific amount of information that is displayed for a specific amount of time. Thus, the point in time that the last portion of the video signal of each field is read is known in time (*see* page 2 of the Office Action). Applicant respectfully submits that the Examiner's position is technically inaccurate.

Schwab discloses having leading and trailing digital code sequences being inserted into the luminance portion of the video signal. The leading and trailing code sequences are each inserted into a portion of corresponding single lines of video information, and are spaced apart from each other by exactly one field. Thus, if the leading code sequence is inserted in line 35, the trailing code sequence is inserted in line 298 *i.e.*, exactly 263 lines (one field) later (Fig. 2; col. 4, lines 28 to 59).

In Schwab, however, a field is one of many still images which comprise a moving picture, but not a substantive or meaningful part of digital data. In Schwab, one line is a line of one field *i.e.*, one still image (many of which form a moving picture). In other words, in Schwab, one field is not unified part, such as one movie, one music tune, etc because one movie comprises a plurality of still images, each of the still images having a respective field. That is, line 227 is not a timing before an end timing of contents which are a substantive or meaningful part of digital data but simply a line in a field forming one still image. In short, Schwab cannot and does not detect a timing where one movie switches to the next movie. Schwab fails to disclose or suggest determining a timing before switch, start, or end of substantive or meaningful part of the digital data.

In addition, Applicant challenges the Official Notice and respectfully requests that the Examiner provide a reference for the allegedly well known features. For example, Examiner

acknowledges that Schwab relates to outputting a video signal which is analog and not digital (claim 20, col. 6, lines 61 to 68). In other words, Schwab fails to disclose or suggest digital data. The Examiner, however, alleges that it would be obvious to use the same principles in a digital environment as in the analog environment of Schwab (*see* pages 2 and 3 of the Office Action). Applicant respectfully submits that this position amounts to a mere speculation not substantiated with any evidence of record. Although video data may be stored in analog format and in a digital format, it does not follow that the same principles will be applied to protecting different formats of video data. For example, analog data deteriorates with every copy made whereas digital data does not. In other words, it is inaccurate to assume that the same principles will apply to these various different formats of data. Accordingly, Applicant respectfully requests the Examiner to withdraw this Official Notice or to substantiate it with objective evidence *i.e.*, a reference.

In short, Schwab does not disclose or suggest a plurality of continuous digital contents which are substantive or meaningful parts of digital data and determining a timing before an end timing of the contents. For at least these exemplary reasons, claims 1, 3, 5, 9, 11, 13, 17, 19, and 21 patentably distinguish from Schwab. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claims 1, 3, 5, 9, 11, 13, 17, 19, and 21 and their dependent claims 2, 4, 7, 8, 10, 12, 15, 16, 18, 20, 28, and 29.

In addition, dependent claim 29 recites: “wherein said embedded digital watermark is invisible during viewing of the plurality of continuous contents.” The Examiner further contends that the digital code sequence qualifies as a digital watermark (*see* pages 2 and 3 of the Office Action). In Schwab, however, the leading and trailing digital code sequences are not watermarks. Each code sequence in Schwab will distort the video information in the particular

line in which the sequence is inserted. The distortion appears as a dropout (col. 4, lines 45 to 50) as is common with protection of analog data. That is, the digital code sequences of Schwab do not and cannot suggest a watermark at least because they visually affect the contents of the video signal. In short, the digital code sequence is visible during the viewing of the analog video. For at least these additional exemplary reasons, claim 29 is patentable over Schwab in view of allegedly well know art.

Claims 6, 14, 22, 25, 26 and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schwab and further in view of European Patent No. 1 006 722 A2 to Yoshiura et al. (hereinafter “Yoshiura”). Applicant respectfully traverses these grounds of rejection in view of the following comments.

Claims 6, 14, 22, and 25-27 depend on claims 5, 13, 21, 1, 9, and 17, respectively. Applicant has already demonstrated that Schwab in view of allegedly well known art do not meet all the requirements of the independent claims 5, 13, 21, 1, 9, and 17. Yoshiura fails to cure the deficient disclosure of Schwab. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claims 5, 13, 21, 1, 9, and 17. Since claims 6, 14, 22, and 25-27 depend on claims 5, 13, 21, 1, 9, and 17, respectively, they are patentable at least by virtue of their dependency.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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